PUBLIC NOTICE

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

DA 19-242
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PUBLIC SAFETY AND HOMELAND SECURITY BUREAU SEEKS COMMENT ON IMPROVING THE WIRELESS RESILIENCY COOPERATIVE FRAMEWORK

PS Docket No. 11-60

Comment Date: April 29, 2019
Reply Date: May 20, 2019

This Public Notice is the third in a series that solicits input on the efficacy of the Wireless Resiliency Cooperative Framework (Framework).[1] Announced in April 2016,[2] the Framework is a voluntary wireless industry commitment intended to promote resilient communications and situational awareness during disasters. The Federal Communications Commission (Commission) has taken several steps to re-examine the Framework for purposes of restoring communications during and following disasters.[3] Among other actions, on November 5, 2018, the Public Safety and Homeland Security Bureau (Bureau) issued letters (collectively, the PSHSB Letters) to each of the signatories of the Framework (Signatory, or collectively, Signatories), asking them to provide post-disaster action reports for the 2017 and 2018 hurricane seasons as part of the Commission's comprehensive investigation of the Framework.[4]

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[1] *See Public Safety and Homeland Security Bureau Seeks Comment on Improving Wireless Network Resiliency to Promote Coordination through Backhaul Providers*, PS Docket No. 11-60, Public Notice, DA 18-1238 (PSHSB Dec. 10, 2018) (Backhaul Public Notice); *see also Public Safety and Homeland Security Bureau Seeks Comment on Improving Wireless Network Resiliency Through Encouraging Coordination with Power Companies*, PS Docket No. 11-60, Public Notice, DA 19-13 (PSHSB Jan. 03, 2019) (Power Public Notice).

[2] Letter from Joan Marsh, AT&T; Charles McKee, Sprint; Grant Spellmeyer, U.S. Cellular; Scott Bergmann, CTIA; Steve Sharkey, T-Mobile; and William H. Johnson, Verizon, to Marlene Dortch, Secretary, Federal Communications Commission, PS Docket Nos. 11-60, 13-239 (filed Apr. 27, 2016) (Framework). In December 2016, the Commission adopted an Order supporting the Framework. *See Improving the Resiliency of Mobile Wireless Communications Networks, Including Broadband Technologies*, Order, 31 FCC Rcd 13745 (2016) (Framework Order). *See also*, Letter from Kara Leibin Azocar, Regulatory Counsel, Federal Affairs, GCI Communication Corp to Marlene Dortch, Secretary, FCC (providing notice of its intent to participate in the Framework) (filed Sept. 1. 2017); Letter from Michael D. Rosenthal, Director of Legal and External Affairs, Southern Communications Services, Inc. d/b/a Southern Linc to Marlene Dortch, Secretary, FCC (providing notice of its intent to participate in the Framework) (filed Sept. 5, 2017).

[3] *See* Backhaul Public Notice at 1 (describing prior Commission measures in connection with re-examining the Framework).

[4] *See FCC Launches Re-Examination of Wireless Resiliency Framework in Light of Recent Hurricanes, Agency Sends Letters to Framework Signatories Asking Them to Provide Post-Disaster Action Reports*, News Release (rel.

(continued….)

This Public Notice continues the Commission's line of inquiry into the Framework's effectiveness and builds upon the record we have received following the 2017 and 2018 Atlantic hurricane seasons,[5] including the responses to the PSHSB Letters.[6]

The Bureau now seeks feedback on the implementation and effectiveness of each prong of the Framework, including the Signatories' responses to the PSHSB Letters[7] and how to best monitor and document its efficacy. The PSHSB Letters requested summaries of how each Signatory implemented the Framework with regard to the seven hurricanes that impacted the United States and its territories in 2017 and 2018 (Hurricanes Harvey, Irma, Maria, Nate, Lane, Florence and Michael). The Bureau particularly welcomes comments from cross-sector stakeholders with on-the-ground experience during a disaster in which wireless providers utilized the Framework. The Bureau intends to use these experiences to help inform recommendations it may make to the Commission on measures to expedite service restoration efforts in the face of a storm or other disastrous event and to also inform the FCC's ongoing review of the efficacy of the Framework. In addition to stakeholders in the communications and emergency response sectors, we are interested in hearing from industry and government bodies at all levels, and particularly from consumers, including people with disabilities and those who may be disproportionately affected by communications outages, as well as from any other interested stakeholders.

A. **Background**

The Framework enumerates five prongs of commitment: providing for reasonable roaming arrangements during disasters when technically feasible; fostering mutual aid during emergencies; enhancing municipal preparedness and restoration; increasing consumer readiness and preparation; and improving public awareness and stakeholder communications on service and restoration status.[8] An emergency or disaster activates the Framework where the Federal Emergency Management Agency (FEMA) declares Emergency Support Function 2 (ESF-2)[9] and the FCC activates the Disaster

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Nov. 6, 2018) (describing the PSHSB Letters); *see also* https://www.fcc.gov/document/fcc-seeks-industry-input-review-wireless-resiliency-framework for the individual letters sent to each of the Signatories.

[5] *See Public Safety and Homeland Security Bureau Seeks Comment on Response Efforts Undertaken During 2017 Hurricane Season*, PS Docket No. 17-344, Public Notice, 32 FCC Rcd 10245 (2017) (Hurricane Public Notice). *See also Public Safety and Homeland Security Bureau Seeks Comment on Hurricane Michael Preparation and Response,* Public Notice, PS Docket No. 18-3389, DA 18-1176 (rel. Nov. 16, 2018) (*Public Notice*). The Bureau is investigating restoration of service after Hurricane Michael. The results of that effort and related input as to this Public Notice will help to inform recommendations from the Bureau to the Commission about how to improve service restoration overall after weather-related outages.

[6] The Signatories filed individual responses to the PSHSB Letters on November 26, 2019 in PS Docket No. 11-60. *See* Letter from Christi Shewman, Assistant Vice President – Senior Legal Counsel, AT&T Services, Inc., to Marlene Dortch, Secretary, FCC; (Erratum filed 12/6/2018) (AT&T Response); Letter from Kara Leibin Azocar, Regulatory Counsel, Federal Affairs, GCI Communication Corp to Lisa Fowlkes, Chief, Public Safety and Homeland Security Bureau, FCC (GCI Response); Letter from Michael D. Rosenthal, Director of Legal and External Affairs, Southern Communications Services, Inc. d/b/a Southern Linc to Marlene Dortch, Secretary, FCC; Letter from Ray Rothermel, Counsel – Legal/Government Affairs, Sprint Corporation to Marlene Dortch, Secretary, FCC (Response of Sprint); Letter from Steve B. Sharkey, Vice President, Government Affairs, Technology and Engineering Policy, T-Mobile USA, Inc. to Lisa Fowlkes, Chief, Public Safety and Homeland Security Bureau and accompanying Response of T-Mobile USA, Inc. (Response of T-Mobile); Letter from Grant B. Spellmeyer, Vice President, Federal Affairs and Public Policy, U.S. Cellular Corp. to Marlene Dortch, Secretary, FCC; Letter from Robert G. Morse, Associate General Counsel, Federal Regulatory and Legal Affairs, Verizon to Marlene Dortch, Secretary, FCC (Signatories' Responses).

[7] *See* Signatories' Responses.

Information Reporting System (DIRS)[10] for a given disaster.[11] The PSHSB Letters requested information on the Signatories' implementation of three of these five Framework prongs: roaming, mutual aid, and municipal preparedness and restoration. More specifically, the PSHSB Letters asked for detailed lists of mutual aid and roaming agreements that Signatories have established, as well as any instances where such agreements were modified, impeded, or even declined outright. The Bureau also asked for information as to each Signatory's implementation of industry best practices.[12] All seven Signatories filed timely responses that included information specific to their networks and geographic footprint.[13]

B. Providing For Roaming Under Disasters

Under the Framework, Signatories committed to working with other wireless providers to implement roaming agreements for the duration of a disaster event if existing roaming arrangements and call processing methods do not already include similar provisions.[14] The Framework currently provides that wireless providers negotiate roaming using the following process: "(i) a requesting carrier's network has become inoperable and the requesting carrier has taken all appropriate steps to attempt to restore its own network, and (ii) the home carrier has determined that roaming is technically feasible and will not adversely affect service to the home carrier's own subscribers."[15]

In their responses to the PSHSB Letters, Signatories either explicitly stated or alluded to the roaming agreements that were in place prior to each specific disaster, with varying degrees of detail. For example, some Signatories indicated that due to pre-established roaming arrangements, roaming on partner wireless networks during disasters would not generally require a proactive change or system selection to allow wireless traffic to cross the network and is usually automatic for most wireless subscribers. Other Signatories have indicated that while existing roaming agreements in place prior to an emergency event continue to be recognized without modification, they do not maintain formal roaming agreements that are specific or limited for Framework activated events.

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[8] Framework at 1-3.

[9] ESFs provide the structure for coordinating Federal interagency support for a Federal response to an incident. ESF-2 coordinates Federal actions to assist industry in restoring the public communications infrastructure and to assist State, tribal, and local governments with emergency communications and restoration of public safety communications systems and first responder networks. *See* National Response Framework: Overview: ESF and Support Annexes Coordinating Federal Assistance in Support of the National Response Framework, U.S. Department of Homeland Security, January 2008. https://www.fema.gov/media-library/resources-documents/collections/533.

[10] DIRS is a voluntary, web-based system that communications companies, including wireless, wireline, broadcast, and cable providers, can use to report communications infrastructure status and situational awareness information during times of crisis. *See* FCC, *Disaster Information Reporting System (DIRS)*, https://www.fcc.gov/general/disaster-informationreporting-system-dirs-0.

[11] Framework at 2-3.

[12] PSHSB Letters.

[13] GCI did not respond to any of the questions because GCI provides services in Alaska, which was not impacted by any of the hurricanes over the last two years. Southern Linc was impacted by and submitted responses to all the questions for Hurricanes Irma, Nate, Florence and Michael. US Cellular was only affected by Hurricane Florence and submitted responses regarding that storm. AT&T, Sprint, T-Mobile and Verizon submitted responses to each question in relation to all seven of the hurricanes.

[14] Framework Letter at 2.

[15] Framework at 2.

Only one Signatory reported a denial of a roaming request. One provider denied another provider's initial request because the storm had not yet made landfall in Florida[16] and due to concerns over network stability and capacity.[17] Once the storm was underway and the provider evaluated network performance data from the requesting provider, the request for roaming was granted.[18] Per industry practices, the most typical justification for a denial is when the provider receiving the request was itself experiencing a significant degradation of network performance that could be further degraded by additional traffic from the requester's subscribers. None of the providers' responses specify the amount of degradation that would cause a denial. In another PSHSB Letter response, one Signatory indicated that they received and granted several requests for voice and short message service (SMS) only roaming in certain areas affected by Hurricane Maria.[19]

The Bureau requests that commenters consider their on-the-ground experience with roaming, in addition to the information provided by Signatories as summarized above, when responding to the questions below. The Bureau requests that commenters with specific on-the-ground experience during any of the seven hurricanes include information on the particular hurricane in which they experienced roaming issues, the specific issue experienced (e.g., loss of data, voice or both; intermittent service or total loss of service; etc.) and any other relevant information when answering the following questions:

1. Were your devices able to roam during the 2017 and 2018 hurricane seasons? If not, what roaming challenges did you encounter?
2. Does your wireless device allow you to switch from the default network selection of restricted roaming to automatic roaming? To what extent does standardizing these capabilities help ensure predictable and consistent behaviors across all networks and user devices?
3. What metrics would be most useful in evaluating the effectiveness of the Signatories' roaming during disaster commitments? Specific examples could include, but are not limited to, the percentage of customers covered by ad hoc roaming agreements on a per-wireless provider basis, as well as the percentage of calls completed during an emergency due to pre-negotiated roaming agreements?
4. To what extent do automatic roaming agreements[20] for disaster situations increase the chances that fully interoperable communications will be available or promptly restored during disaster events? If such agreements would not be helpful to promote these objectives, or if there are challenges to implementing them, explain why.
5. To what extent does automatic roaming for voice traffic on a limited basis (cannot guarantee calls or texts will go though) for limited duration (upon DIRS activation) promote interoperable communications and restoration of service? (We contrast this scenario with requiring each individual provider to request roaming during each emergency where it becomes necessary.)

C. Fostering Mutual Aid During Disasters

Under the Framework, Signatories committed to sharing physical assets and necessary consultation where feasible during and after disasters through mutual aid arrangements with other

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[16] *See* A&T& Response at 14.

[17] *See* Response of T-Mobile at 17.

[18] *See* AT&T Response at 14. Roaming was provided via a pre-existing roaming agreement for which the in-market roaming restriction was lifted. See Response of T-Mobile at 17.

[19] AT&T Response at 28.

[20] An automatic roaming agreement between providers would automatically operationalize, without need for further action, during a Framework-activated event (i.e., where FEMA declares an ESF-2 event and the FCC activates DIRS.)

wireless providers. [21] The PSHSB Letters also asked Signatories to include a detailed list of mutual aid agreements and the particulars of such agreements. The Signatories' responses to the PSHSB Letters made no mention of standing mutual aid agreements; however, several noted that they often established mutual aid agreements immediately prior to or after a disaster, as the need arises. No Signatory noted any instance where another Signatory denied a request for mutual aid. One Signatory did report a significant level of coordination between all wireless providers during the restoration period following Hurricane Michael.[22]

The Bureau requests that commenters with any experience during a disaster in which they were aware of or observed any activities or coordination arising from mutual aid agreements between wireless providers include that information when responding to the questions below. The Bureau requests that commenters with specific on-the-ground experience during any of the seven hurricanes include information on the particular hurricane where they were aware of or observed providers sharing physical assets or other forms of mutual aid and any other relevant information when answering the following questions:

1. How can we measure the extent that providers delivered, sought, or received mutual aid during emergencies and the effectiveness of such mutual aid?
2. To what extent is measuring the efficacy of mutual aid during emergencies context-specific? Are there ways to measure this efficacy in a standardized way?
3. Are there particular improvements to existing mutual aid processes that further support prompt service restoration?

D. Local Preparedness and Consumer Readiness

Under the municipal preparedness and restoration prong of the Framework, Signatories committed to convene with a select number of local government representatives and public safety subject matter experts to develop best practices to facilitate coordination before, during, and after emergencies and disasters in order to maintain and restore wireless service continuity.[23] The resulting best practices cover the areas of 1) planning before disasters and emergencies occur; 2) facilitating coordination during and after emergencies and disasters; and 3) creating education awareness campaigns.

The CTIA Best Practices sets forth steps for educating local government personnel and wireless providers on each other's operational capabilities and educating the general public about wireless resiliency preparedness.[24] The PSHSB Letters asked Signatories to describe the extent to which they implemented the CTIA Best Practices during each event for which the Framework was activated in 2017 and 2018.[25] In their responses, six of the seven Signatories indicated that they have implemented the best practices for coordination and claimed strong relationships with state and local entities for coordination activities. The seventh Signatory, while supporting the Framework and CTIA Best Practices, has never experienced an emergency event in which the Framework was activated in their region and as such, has not had cause to implement the best practices.[26]

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[21] Framework at 3.

[22] *See* Response of Sprint at 2-3.

[23] *See* CTIA, Best Practices for Enhancing Emergency and Disaster Preparedness and Restoration, https://api.ctia.org/docs/default-source/default-document-library/best-practices-for-enhancing-emergency-and-disaster-preparedness-and-restoration.pdf (last visited February 13, 2018) (CTIA Best Practices).

[24] CTIA Best Practices at 4-5.

[25] PSHSB Letters at 2.

[26] *See* GCI Response.

During disasters, state and local authorities staff Emergency Operations Centers (EOCs) to provide a centralized location for decision makers and response team personnel to gather critical information, coordinate response activities, and manage personnel. EOCs require effective technology to ensure communication between staff and response teams and offer an opportunity for industry to engage in direct coordination during disasters. All Signatories stated that they participate in state and local EOCs. None reported any problems or obstacles to credentialing or access to any sites under state and local government control.[27] The Bureau requests that commenters consider this information and include any relevant on-the-ground experience when addressing the following questions:

1. To what extent are existing industry best practices, including those recommended by CTIA as part of its commitment to the Framework, sufficient for facilitating local coordination? If not, why not ?
2. What factors affect the extent to which a local community is adept at implementing these best practices? What best practices have not been fully or effectively implemented by local communities? If none, why not? How has wider adoption of the best practices been encouraged?
3. What other industry or government-led efforts have been undertaken to target greater collaboration and coordination between cross sector industries that might address municipal preparedness and restoration during disasters?
4. How does one measure the extent to which Signatories are implementing the industry best practices and how communities leverage best practices or not?
5. Are Signatories' education awareness campaigns adequately providing information sharing with local communities during disasters? If not, why not?
6. To what extent are Signatories adequately educating the general public about wireless resiliency preparedness, including what devices will work on which networks and what capabilities various types of devices will provide during disaster events? To what extent is this information deficient in terms of educating the public, and why?
7. What metrics are available to measure the usefulness and effectiveness of the existing education awareness campaigns?

E. Public Awareness of Service and Restoration Status

Under the Framework, the Signatories committed to making data from DIRS regarding the percentage of cell sites out of service (calculated consistent with established DIRS practices) publicly available on the FCC's website on an industry-aggregated, county-by-county basis for any geographic area defined in a DIRS activation notice.[28] The aggregated data ensures that the public has the most up-to-date information and improves coordination between the wireless industry and relevant stakeholders.

The main data elements of DIRS are the percent of cell sites down by county and further disaggregated by power, transport, and damage. Signatories recently advised the Bureau that, going forward, they will include information through DIRS on the total number of cell sites out of service due to damage, power issues, transport issues, and cell sites in service but relying on back-up power sources.

Additionally, the Signatories have agreed to provide relevant up-to-date contact information for a planned carrier/Public Safety Answering Point (PSAP) contact database, subject to an agreement by all participating entities that such data be kept confidential.[29] Once such a database has been established, State EOC inquiries can be promptly relayed to the carrier's designated representative during an ESF-2

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[27] *See* Signatories' Responses.

[28] Framework Letter at 3.

[29] *Id*.

and DIRS activated event.[30] The Bureau requests that commenters consider this information and include any relevant on-the-ground experience when addressing the following questions:

1. Are there data elements that would be useful for providers to share during emergencies that are not currently made available under the Framework? If so, what elements and why?
2. Are there any other changes that the Bureau could recommend as to DIRS reporting that would aid providers and/or Federal, state and local public safety partners in their response and recovery from disasters?

F. Promotion and Monitoring of the Framework

Currently, the Bureau promotes the Framework by highlighting its existence, implementation and use with state, local, tribal and territorial officials, including other emergency managers. For example, the Bureau has referenced the Framework during its participation at Regional Emergency Communications Coordination Working Group (RECCWG) Plenary meetings, including the national RECCWG meeting,[31] as well as at various public facing events.[32] The Bureau has also promoted the Framework through soliciting additional wireless providers' voluntary commitments to the Framework,[33] and by discussing its use in Bureau reports on emergency events.[34] The Bureau seeks further comment on the following issues:

1. Are there additional methods for promoting awareness of the Framework among federal, state, and local public safety partners and other industry stakeholders that the Bureau should consider?
2. Should the Bureau request after-event disaster summaries similar to that requested in the PSHSB Letters? If so, how frequently should this information be requested?
3. What methods are most effective for monitoring each prong of the Framework?[35]

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[30] *Id*.

[31] In 2006, Congress passed the *Post-Katrina Emergency Management Reform Act of 2006* to help first responders communicate more effectively across jurisdictions. The law created working groups to improve regional collaboration. Each group has members from different levels of government, as well as from the private sector. The Regional Emergency Communications Coordination Working Group is one such group and includes the FCC.

[32] *See, e.g*., Public National Cyber Security Communications Watch Situation Report (Sept. 16, 2018); FCC Webinar on Incident Management for SLTT (state, local, tribal, territorial) Officials (Sept. 27, 2018); Presentation: Government Emergency Telecommunications Service (GETS)/Wireless Priority Service (WPS) Team Forum and Communications Technical Interchange Meeting (Sept. 26, 2018); Webinar to the American Cable Association (June 7, 2018); FCC Overview Presentation for DC Homeland Security and Emergency Management Agency (DCHSEM) (Oct. 2018).

[33] *See Public Safety and Homeland Security Bureau Reminds Wireless Providers Interested in Participating in the Wireless Resiliency Cooperative Framework to File Their Intent in PS Docket No. 11-60*, PS Docket No. 11-60, Public Notice (rel. Aug. 3, 2017).

[34] *See, e.g.*, Hurricane Public Notice; *Report on the 2017 Atlantic Hurricane Season's Impact on Communications,* PS Docket No. 17-344, Report and Recommendations (rel. Aug. 24, 2018). The Bureau requested comment on how the Commission can most effectively promote the Framework among federal, state, and local public safety partners and other industry stakeholders but received only limited comment generally supporting promotion of the Framework. *See Public Safety and Homeland Security Bureau (PSHSB) Seeks Comment on the Effectiveness of the Wireless Network Resiliency Cooperative Framework and for the Study on Public Access to 911 Services During Emergencies*, PS Docket No. 11-60, Public Notice (rel. June 13, 2018) (June 2018 Public Notice).

[35] *See, e.g.*, Verizon Comments at 3 (filed July 16, 2018), Ex Parte Letter from Robert Morse, Assistant General Counsel, Verizon to Marlene Dortch, Secretary FCC (filed Aug. 31, 2018) (suggesting an annual, narrative-based approach to monitor service providers' efforts to meet their voluntary commitments); City of New York Reply Comments at 2 (filed July 31, 2018) (supporting narrative after action reports); *see also* Letter from Jaime Tan, Director, Federal Regulatory, AT&T to Marlene Dortch, Secretary, FCC (filed Sept. 12, 2018) (noting that "Verizon's alternative proposal [a confidential narrative] is certainly an improvement over any approach that relies solely on comparing data-points between years"); T-Mobile Comments at 5-8 (filed July 16, 2018) (stating that data collection tailored to the unique circumstances of individual disasters—compiled on an "as needed" basis—presents

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G. Other Framework Improvements

In reviewing the actions taken related to the seven hurricanes for which the Signatories implemented the Framework, the Bureau is considering whether to recommend to the Commission that the Framework include additional provisions for infrastructure and preparedness. The Bureau has received reports that certain types of infrastructure (e.g., aerial vs. in-ground fiber) may have contributed to the loss of communications during one or more of the hurricanes. The Bureau is interested in hearing from commenters with on-the-ground experience as to whether more specific back-up systems (such as microwave links), types of infrastructure, or number of temporary assets (such as Cells on Light Trucks (COLTs) and Terrestrial Cells on Wheels (COWs)), would help improve communications during disasters and/or facilitate restoration of service after outages. Additionally, the Bureau is interested in hearing about any concerns or issues that have not been discussed or noted in previous Public Notices, comments or discussions of the seven hurricanes. The Bureau therefore asks the following questions:

1. To what extent would having back-up systems ready to deploy for vulnerable infrastructure improve service restoration time? What challenges do providers face in doing so?
2. To what extent would deployment of a specific number of temporary assets based on a metric such as county subscriber population improve service restoration time? How would the ratio of subscribers to temporary assets be determined? What challenges would providers face in adhering to such a practice?
3. Are there challenges experienced during a specific hurricane that are not accurately reflected in the responses of the Signatories to the PSHSB Letters? If not, what are those concerns and their potential solutions?

Procedural Matters

Pursuant to Sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the FCC's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 CFR 24121 (1998).

Commenting parties may file comments in response to this Notice in PS Docket No. 11-60.

▪ Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://apps.fcc.gov/ecfs/.

▪ Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.

▪ Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the FCC's Secretary, Office of the Secretary, Federal Communications Commission.

▪ All hand-delivered or messenger-delivered paper filings for the FCC's Secretary must be delivered to FCC Headquarters at 445 12th Street, SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

▪ Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.

▪ U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington, DC 20554.

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an effective approach to assessing the Framework); NASNA Comments at 1-2 (filed July 16, 2018) (favoring a metric-based survey but noting that a free form narrative can explain data elements).

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (tty).

Parties wishing to file materials with a claim of confidentiality should follow the procedures set forth in Section 0.459 of the Commission's rules. Casual claims of confidentiality are not accepted. Confidential submissions may not be filed via ECFS but rather should be filed with the Secretary's Office following the procedures set forth in 47 CFR § 0.459. Redacted versions of confidential submissions may be filed via ECFS. Parties are advised that the FCC looks with disfavor on claims of confidentiality for entire documents. When a claim of confidentiality is made, a public, redacted version of the document should also be filed.

The proceeding this Notice initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[36] Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

For further information, contact Robert Finley, Attorney, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, (202) 418-7835, robert.finley@fcc.gov

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[36] 47 CFR §§ 1.1200 *et seq*.